Electronic Medical Education

U N I V E R S I T Y O F U T A H

CENTER

The Center for Electronic Medical Education (CEME) is located at the University of Utah Health Sciences (UofU). The focus of this Center is to develop component software technology for use by physicians and scientists in image intensive fields, specifically targeted at visual annotation and knowledge representation. Initially, the software consisted of author tools for medical case creation and information management of image intensive data for publishing web-based clinical reference material. In 2001 Amirsys Inc., a commercial spin-off, licensed the medical case creation and annotation tools for medical case creation. In fiscal year 2002, the original technology development was extended into decision support and evidenced-based medicine solutions, biomedical imaging and bioinformatics. CEME established itself as a multidimensional technology hub by extending technology development into three additional markets. Those markets are: 1) telemedicine and remote consultation, 2) electronic medical records (EMR) specifically collection of expert knowledge and annotation of visual data as part of the clinical workflow and 3) biomedical/ biotechnology imaging informatics annotation and knowledge representation.

TECHNOLOGY

CEME technology provides clinicians and basic scientists with knowledge representation tools built on the need to visually annotate (identify and label) images and add expert clinical knowledge (e.g., diagnosis, pathology report, or clinical note) to image data in the healthcare enterprise. The technology enables consultation and sharing of results at each stage of the clinical management of a patient, research or clinical study, and provides a mechanism to track multiple images and textual results. CEME technology can be integrated into existing imaging systems as a layer that facilitates communication or exist as a standalone application in a research or healthcare enterprise. CEME technology was developed in response to the critical need to capture the growing and evolving base of imaging results and expert knowledge, such that downstream experts can utilize the expert knowledge base. The goal is to improve the process of delivering healthcare and scientific discoveries by developing technology for the purposes of consistent, context-appropriate communication and collaboration, standardization and interoperability of clinical tools and interactive presentation of data.

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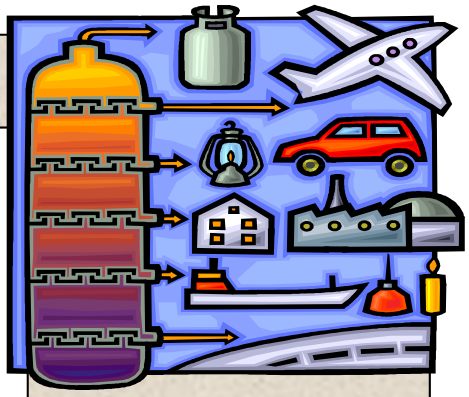

ACCOMPLISHMENTS

As part of our objectives, CEME has adopted an intellectual property strategy of maximizing commercial potential by decomposing CEME technologies into as many individually licensable pieces as possible. This strategy recognizes that software applications developed for medical publishing contain intellectual property threads that can be pulled out into individual invention disclosures and woven into new combinations to meet market needs. The additional markets lead to new commercial entities that push the technology into new markets.

The accomplishments include—A commercial spin-off, AMIRSYS, Inc., that produces electronic reference material. A right to use license with AMIRSYS, Inc. for U of U image content. Established the CEME as a multidimensional technology hub that addresses the needs of image integration in the electronic medical record and field of biomedical imaging informatics. Strategic positioning of CEME technology with key industry participants that has resulted in a Memorandum of Understanding and Teaming Agreement to get CEME technology into Battlefield Telemedicine. Patent on the core technology. CEME technology generated multiple invention disclosures as part of a multidisciplinary collaboration and technology development effort. A new commercial spin-off company, Resilient Imaging, that is a services-based company for integration of annotation and knowledge representation technology. Two SBIR grants have been submitted to the NIH National Institute for Biomedical Imaging and Bioengineering and the NIH National Cancer Institute for further development of CEME technology. Resilient Imaging is in the process of negotiating a non-exclusive license for the CEME technology and patent with the Technology Transfer Office at the University of Utah.

THINK TANK

What if there was...

A way to share visually annotated images with other healthcare professionals throughout the healthcare system???

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